WHAT IS CLAIMED IS:

1. An animal model for measuring visceral pain comprising a balloon catheter and an implantable sensor module having transcutaneous telemetring ability.

2. An animal model according to claim 1 wherein the balloon catheter is an implantable balloon catheter.

3. An animal according to claim 2 wherein the implantable balloon cathether comprises fixation means preferably consisting of two nodes to fixate the catheter.

4. An animal according to claim 2 wherein the balloon catheter is implanted into the duodenum.

5. An animal according to any of the preceding claims, wherein the implantable sensor module is capable of accepting a plurality of input signals.

6. An animal according to claim 5 wherein the implantable sensor module is set up to receive both visceromotor and pseudoaffective responses of the test animal.

7. An animal according to claim 5 wherein the implantable sensor comprises at least two input ports.

8. An animal according to claim 5 wherein the implantable sensor is connected to a bipolar electrode pair and a blood catheter.

9. A balloon catheter consisting of biocompatible tubing (1) closed at one end with elastic material (2), characterized in that the elastic material is attached to the biocompatible tubing at a position (3) proximal from the tube end (4).

10. A balloon catheter according to claim 9 wherein the elastic material is also attached at the end of the biocompatible tubing (5) and said tubing end is rigidly sealed (6), further comprising a number of holes (7) distal from attachment point (3).

11. A balloon catheter according to claims 9 or 10 further comprising fixation means that are positioned proximal from the tube end.

12. A system for measuring visceral pain comprising:

a balloon catheter according to any one of claims 9 to 11;
an implantable sensor module having transcutaneous telemetering ability; and
an external module capable to monitor and process the telemetered signals.

13. A system according to claim 12 wherein the balloon catheter is implanted in the duodenum of the test animal; and wherein the implantable sensor module is set up to receive both visceromotor and pseudoaffective responses of the test animal.

14. A system according to claims 12 or 13 further comprising means for introducing a measured volume of inflation medium through the proximal end of the balloon catheter.

15. A system according to claim 14 wherein the means for introducing a measured volume of inflation medium comprise a syringe.

16. A kit for generating an animal according to claim 1 comprising a balloon catheter; an implantable sensor module having transcutaneous telemetring ability; a bipolar electrode pair; and a blood catheter.